



Inline bridge

Three-Phase Si-Bridge Rectifiers

DBI 25-005 ... DBI 25-16

Forward Current: 25 A

Reverse Voltage: 50 to 1600 V

Publish Data

Features

- Max. solder temperature: 260 °C, max. 5s
- UL recognized, file No. E63532
- $V_{ISO} > 2500$ V
- In-line isolated metal case with wired connectors
- Blocking voltage to 1600V
- High surge current
- Input rectifier for variable frequency drivers
- Rectifier for DC motor field supplies
- Battery charger
- Recommended snubber network : RC 50Ω, 0.1μF

Mechanical Data

- Metal case, dimensions: 40 x 20 x 10 mm
- Weight approx. 35
- Terminals: plated terminals solderable per IEC 68-2-20
- Admissible torque for mounting (M 4): 2 (± 10 %) N
- Standard packing : bulk
- Heat sink mouting not on the marking side

| Type | Alternating input voltage V_{RMS} V | Repetitive peak reverse voltage V_{RRM} V |
|------------|---|---|
| DBI 25-005 | 35 | 50 |
| DBI 25-01 | 70 | 100 |
| DBI 25-02 | 140 | 200 |
| DBI 25-04 | 280 | 400 |
| DBI 25-06 | 420 | 600 |
| DBI 25-08 | 560 | 800 |
| DBI 25-10 | 700 | 1000 |
| DBI 25-12 | 800 | 1200 |
| DBI 25-14 | 900 | 1400 |
| DBI 25-16 | 1000 | 1600 |

| Absolute Maximum Ratings $T_c = 25$ °C unless otherwise specified | | | |
|---|---|-------------------|------------------|
| Symbol | Conditions | Values | Units |
| I_{FRM} | Repetitive peak forward current; $f > 15$ Hz ¹⁾ | 100 | A |
| I^2t | Rating for fusing, $t < 10$ ms | 550 | A ² s |
| I_{FSM} | Peak forward surge current, 50 Hz half sine-wave $T_A = 25$ °C | 350 | A |
| I_{FAV} | Max. averaged fwd. current, R-load, $T_A = 50$ °C ¹⁾ | 4 | A |
| I_{FAV} | Max. averaged fwd. current, C-load, $T_A = 50$ °C ¹⁾ | 4 | A |
| I_{FAV} | Max. current with cooling fin, R-load, $T_c = 100$ °C ²⁾ | 25 | A |
| I_{FAV} | Max. current with cooling fin, C-load, $T_c = 100$ °C ²⁾ | 25 | A |
| R_{thA} | Thermal resistance junction to ambient ¹⁾ | 8 | K/W |
| R_{thC} | Thermal resistance junction to case ¹⁾ | 4,1 | K/W |
| T_j | Operating junction temperature | - 50 ... + 150 °C | °C |
| T_s | Storage temperature | - 50 ... + 150 °C | °C |

| Characteristics $T_c = 25$ °C unless otherwise specified | | | |
|--|--|--------|-------|
| Symbol | Conditions | Values | Units |
| V_F | Maximum forward. voltage, $T_j = 25$ °C; $I_F = 12,5$ A | 1,05 | V |
| I_R | Maximum Leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$ | 50 | μA |
| C_j | Typical junction capacitance per leg at V, MHz | | pF |



